**DESCRIPTION**

**Species Reactivity**  
Human

**Specificity**  
Detects human ADAMTS5 in direct ELISAs and Western blots. In Western blots, less than 5% cross-reactivity with recombinant human (rh) ADAMTS1 and rhADAMTS-L1.2 is observed.

**Source**  
Polyclonal Goat IgG

**Purification**  
Antigen Affinity-purified

**Immunogen**  
Mouse myeloma cell line NS0-derived recombinant human ADAMTS5 Ser262-Pro622  
Accession # Q9UNA0

**Formulation**  
Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

*Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

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**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

<table>
<thead>
<tr>
<th>Recommended Concentration</th>
<th>Sample</th>
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<tbody>
<tr>
<td>0.1 µg/mL</td>
<td>Recombinant Human ADAMTS5 (Catalog # 2198-AD)</td>
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<tr>
<td>25 µg/mL</td>
<td>Conditioned cell culture medium spiked with Recombinant Human ADAMTS5 (Catalog # 2198-AD), see our available Western blot detection antibodies</td>
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</tbody>
</table>

**PREPARATION AND STORAGE**

**Reconstitution**  
Reconstitute at 0.2 mg/mL in sterile PBS.

**Shipping**  
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.  
*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C*

**Stability & Storage**  
Use a manual defrost freezer and avoid repeated freeze-thaw cycles.  
- 12 months from date of receipt, -20 to -70 °C as supplied.  
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.  
- 6 months, -20 to -70 °C under sterile conditions after reconstitution.

**BACKGROUND**

ADAMTS5 (a disintegrin and metalloproteinase with thrombospondin motifs 5), also known as aggrecanase-2 and ADAMTS11, is a member of the family of secreted zinc proteases with a multi-domain structure (1, 2). The protein precursors consist of signal peptide and following domains: pro, catalytic, disintegrin-like, TS type 1 motif, cysteine-rich, spacer and a variable number of TS type 1 motifs. ADAMTS5 is an active protease effectively cleaving α2-macroglobulin (3), aggrecan (4), and brevican (5), and is inhibited by TIMP-3 with inhibition constants in the subnanomolar range (6). Based on the murine model studies (7, 8), this protease may be a key enzyme in the degradation of cartilage leading to osteoarthritis and recombinant human eumatoid arthritis. The purified recombinant human ADAMTS5 starts at the N-terminus of the catalytic domain and ends at the C-terminus of the TSP-1 domain. The amino acid sequence of recombinant human ADAMTS5 is 98%, 97%, and 96% identical to that of canine, bovine, and mouse/rat. The aggrecanase activity can be inhibited by 5 mM 1,10-phenanthroline and recombinant human TIMP-3 (Catalog # 973-TM).

**References:**